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The Royal Society of London

PHILOSOPHICAL  
TRANSACTIONS

Volume 40  
1737-1738

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*The Royal Society of London*

JOHNSON REPRINT  
CORPORATION

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NEW YORK  
1963

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*The only official reprint  
authorized by  
The Royal Society of London*

# PHILOSOPHICAL TRANSACTIONS.

## GIVING SOME ACCOUNT OF THE *Present Undertakings, Studies, and Labours,* OF THE INGENIOUS, IN MANY Considerable Parts of the WORLD.

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VOL. XL. For the Years 1737, 1738.

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With a SUPPLEMENT, being the *Croonean LECTURES*  
on *Muscular Motion*, for the Year 1738.

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L O N D O N:

Printed for T. WOODWARD, at the *Half-Moon*, between the  
*Temple-Gates* in *Fleetstreet*; and C. DAVIS in *Pater-*  
*noster-row*; PRINTERS to the ROYAL SOCIETY.

M.DCC.XLI.

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TO THE  
HONOURABLE  
John Winthrop, Esq;  
FELLOW of the ROYAL SOCIETY,  
*&c. &c.*

SIR,

PERSONAL Friendships and Favours are become the trite Topics of Dedications and public Addresses, as if it concerned the Public to have upon Record the mutual Regard, private Persons may have to each other: Therefore without expatiating here, so far as Gratitude might lead me, on the many Favours you have honour'd me with, I shall confine myself to the Relation *Your Illustrious Grandfather* had, and *Yourself* have, to the ROYAL SOCIETY.

No sooner were the Sciences revived at the Beginning of the last Century, and that Natural Knowledge began to be thought a

A Study

## D E D I C A T I O N.

Study worthy a real Philosopher, but the ingenious *JOHN WINTHROP*, Esq; your Grandfather, distinguish'd himself in the highest Rank of learned Men, by the early Acquaintance he contracted with the most Eminent not only at Home, but in his Travels all over *Europe*, by the strict Correspondence he afterwards cultivated with them \*, and by several learned Pieces he composed in Natural Philosophy; which indeed his innate Modesty would not suffer him to publish immediately,

\* As might appear from the great Treasure of curious Letters on various learned Subjects  
still in your Hands, E. gr. from

|   |   |  |  |
|---|---|--|--|
| <i>Earl of Anglesey.</i>                              | <i>Dr. Everard, Ox.</i>   | <i>Ds. Jesse.</i>                                  | <i>Prince RUPERT.</i>  |
| <i>Earl of Arundel.</i>                               | <i>Pet. Jo. Faber, M.D.</i>   | <i>Joh. Keppler.</i>                               | <i>Dr. Sackville.</i>  |
| <i>Elias Ashmole, Esq;</i>                            | <i>Monspelii.</i>   | <i>J. S. Kuffeler, M.D.</i>                        | <i>Earl of Sandwich.</i>   |
| <i>Rob. Boyle, Esq;</i>                               | <i>Gal. Galileo.</i>  | <i>Dr. Lovell, Ox.</i>                             | <i>Dr. G. Starkie.</i>   |
| <i>Tycho Brahe Otto-<br/>nides.</i>                   | <i>J. Rud. Glauber.</i>   | <i>Earl of Manchester.</i>                         | <i>Lord Say and Seal.</i>  |
| <i>Lord Brereton.</i>                                 | <i>Dr. Goddard.</i>   | <i>Ex Lord Chamberlain.</i>                        | <i>J. Slegelius in Ac.<br/>Franc. Med. &amp;c.<br/>Prof.</i>       |
| <i>Lord Brookes.</i>                                  | <i>PRINCEPS Gothar.</i>   | <i>Dr. Merret.</i>                                 | <i>Sir Rob. Southwell,<br/>Dr. Sprat, Bishop of<br/>Rochester.</i> |
| <i>Lord Brouner.</i>                                  | <i>Dr. Grew.</i>  | <i>Dom. Michael, Mona-<br/>cbus.</i>               | <i>PRINCEPS Sultsber-<br/>genis.</i>                               |
| <i>Dr. Browne.</i>                                    | <i>Mr. Hartlib.</i>   | <i>John Milton.</i>                                | <i>Ds. Tanckmarus,<br/>M. D.</i>                                   |
| <i>Jo. Camden.</i>                                    | <i>Dr. Haversfeild.</i>   | <i>Joh. de Monte.</i>                              | <i>Jo. Tradescant.</i>   |
| <i>Dr. Charlton.</i>                                  | <i>J. Bapt. van Hel-<br/>mont, cui fuit unus<br/>vesperi amicus ille<br/>mirificus.</i> | <i>Sir Rob. Moray.</i>                             | <i>Sir Philiberto Ver-<br/>natti.</i>                              |
| <i>Dom. Chartes Jesuita<br/>Ludg. Bat.</i>            | <i>J. Fred. Helvetius.</i>  | <i>Lord Napier.</i>                                | <i>Dr. Wilkins, after-<br/>wards Bishop of<br/>Chester.</i>        |
| <i>Lord Chan. Clarendon</i>                           | <i>Lord Herbert.</i>  | <i>Mr. Isaac, afterwards<br/>Sir Isaac Newton.</i> | <i>Dr. Willis.</i>   |
| <i>Dan. Colwall.</i>                                  | <i>Hans Albrecht Do-<br/>minus Herberstein &amp;<br/>Præfctus Val-<br/>matie.</i>       | <i>Mr. Oldenburgh.</i>                             | <i>Dr. Witherly, Pr. Col.<br/>Med. Lond.</i>                       |
| <i>Ds. Comenius.</i>                                  | <i>Joh. Hevelius Cos.<br/>Gedan.</i>  | <i>Dr. Pell.</i>                                   | <i>Dr. Worfeley.</i>   |
| <i>King CHARLES II.</i>                               | <i>Sir Jo. Heydon.</i>  | <i>Earl of Pembroke.</i>                           | <i>Sir Henry Wotton.</i>   |
| <i>O. CROMWELL.</i>                                   | <i>FRED. Princeps Hol-<br/>satiae &amp; D. Slevic.</i>                                  | <i>Pet. Peregrinus Romæ.</i>                       | <i>Sir Christ. Wren.</i>   |
| <i>Arthur Dee, M. D.</i>                              | <i>Robert Hooke.</i>  | <i>Albert Peterson Am-<br/>bel. vixit an. 190.</i> |  |
| <i>Jo. Dee, Jun.</i>                                  | <i>Ch. Howard, after-<br/>wards Duke of Nor-<br/>folk.</i>                              | <i>Sir Edward Peto.</i>                            |  |
| <i>Dr. Dekinion.</i>                                  |   | <i>Ds. Polemannus.</i>                             |  |
| <i>Sir K. minn Digby.</i>                             |   | <i>Jo. Ray.</i>                                    |  |
| <i>Corn. Dæbelius.</i>                                |   | <i>Conrad. Roves Do-<br/>minus Rosenftein</i>      |  |
| <i>ERNESTUS Colonæ<br/>Episcopus &amp;<br/>ELECT.</i> |   | <i>Margrav. in Croa-<br/>tia.</i>                  |  |
| <i>Joh. Espagnet, Pr.<br/>Parl. Aquitan.</i>          |   |  |  |

Many of which you have given me the Pleasure of perusing; besides a great Number  
which it would take up too much Room here to recite.

and

## *D E D I C A T I O N.*

and when prevailed on by Friends to impart some † of them to the Public, he concealed his Name, not being solicitous of the Reputation they might reflect on their Author : The same Principle in you still induces you not to withdraw the Veil; it having always been a Maxim with both him and you, *Prodeesse quam conspicere*.

THE Cloud that was gathering over his native Country, warned him and his Father to seek a quiet Retirement in the new World,

— *Sedes ubi fata quietas  
Ostendunt; illic fas Regna resurgere nova.*

Where, after having sold a very plentiful Estate in *Old England*, they conducted a large Body of People, and at the Expence of their whole Patrimony, first \* establish'd the Colony of *Massachusetts-Bay*, and afterwards other Colonies in *New-England*, so that they were in Reality the FOUNDERS of that now most flourishing and most potent of all the

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† *Many more unpubliss'd remain in MS. in your Hands.*

\* See the *Magnalia CHRISTI Americana*.

## D E D I C A T I O N.

English Settlements, *NEWENGLAND*, of which his Father the Honourable *John Winthrop*, Esq; the Elder, was the first Governor.

THE Fatigues of this great Undertaking took up too much of his Time, to allow him all that Leisure that was wish'd for by his learned Friends in *Europe*, for his publishing many curious Pieces which they had Reason to expect from him. His distant Abode from *London*, and his not putting his Name to his Writings, made him not so universally known as the *Boyle's*, the *Wilkins's*, or the *Oldenburg's* of his Days, nor his Name handed down to us with such general Applause. In Concert with these and other learned Friends, (as he often revisited *England*) he was one of those, who first form'd the Plan of the *Royal Society*; and had not the Civil Wars happily ended as they did, Mr. *Boyle* \* and Dr. *Wilkins*, with several other learned Men, would have left *England*, and, out of Esteem for the most excel-

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\* As may appear in Letters from Mr. Boyle, Dr. Wilkins, Sir K. Digby, &c. to M<sup>r</sup>. Winthrop.

## D E D I C A T I O N.

lent and valuable Governor, *JOHN WINTHROP* the younger, would have retir'd to his new-born Colony, and there have establisht'd that SOCIETY for promoting Natural Knowledge\*, which these Gentlemen had formed, as it were, in *Embryo* among themselves; but which afterwards receiving the Protection of King *CHARLES II.* obtain'd the Style of ROYAL, and hath since done so much Honour to the *British Nations*, as to be imitated by the several *European Princes*, who desir'd to be esteem'd the *Patrons* of Learning.

WHEN the *Royal Society* was thus founded, it was his constant Care to shew a peculiar Regard to promote the Design of its Institution, by fending over many Specimens of the curious natural Productions of those Countries, and by communicating in Writing his Remarks upon them; some of which grace the earliest of our Transactions: And by a Letter from Mr. *Oldenburg*, written by Order of the *Royal Society*, Mr. *Winthrop*

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\* Which not taking p'ace, his Father first founded the College at Cambridge in New-England, since known by the Name of Harvard-College.

## *D E D I C A T I O N.*

was in a particular manner invited to take upon him the Charge of being the chief Correspondent of the *Royal Society* in the *West*, as Sir *Philiberto Vernatti* was in the *East-Indies* \*.

You, Sir, have imitated the Example of your worthy Ancestor: Your Regard to the *Royal Society* shew'd itself from your Youth; you having sent to *England* many rare Curiosities for the *Museum* of the *Royal Society*, which, although by the Disingenuity of the Pilot they miss'd their Port, and were not laid up in the intended *Repository*, are some of them to be seen in a recent *Museum* now at *Cambridge*.

WHEN the Injustice and Ingratitude of a designing Party in Power among that very *People*, whereof the *WINTHROPS* have always been in the most strict Sense the *Fathers*, the *PATRES PATRIÆ*, had most cruelly driven you from your Family

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\* In a Letter from Mr. Oldenburg, Aug. 3. 1654.

and

## D E D I C A T I O N.

and Native Soil, to seek Justice and Security in your natural Rights from the Hands of our most *Gracious SOVEREIGN*; amidst the Vexation of the greatest Abuses, and the Hurries of the most sudden Departure, you were not unmindful of the *Royal Society*; for soon after your being chosen a *Fellow*, you increas'd the Riches of their *Repository* with above Six hundred curious Specimens, chiefly in the Mineral Kingdom, accompanied with a List containing an accurate Account of each Particular; thereby shewing your great Skill in natural Philosophy, and at the same time intimating to *England* the vast Riches which lie hidden in the Lap of her principal Daughter. Since Mr. *Colwall*, the Founder of the *Museum* of the *Royal Society*, you have been the Benefactor who has given the most numerous Collection; and it is to be hoped your generous Example will be followed by some of the present Members, by which means our *Repository* may soon become one of the most conspicuous in *Europe*.

THE extraordinary Knowledge, you have in the deep Mysteries of the most secret *Hermetic*

## **D E D I C A T I O N.**

*metic Science*, will always make you esteemed and courted by learned and good Men ; but I forbear to say any more, lest the Trouble I have given you by this long Address should be a Trespass upon your Patience ; in which Case I know your Goodness will forgive me ; and I hope you will be persuaded, that I am upon all Occasions, with the greatest Sincerity,

*S I R,*

*Dartmouth-street,  
WESTMINSTER,  
August 15. 1741.*

*Your most affectionate Friend,  
and obliged humble Servant,*

**CROMWELL MORTIMER, M.D.**

*Secretary to the ROYAL SOCIETY, and  
Fellow of the ROYAL COLLEGE OF  
PHYSICIANS, LONDON.*

Numb. 445

Beginning VOL. XL.

# PHILOSOPHICAL TRANSACTIONS

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For the Months of *January, February, March, April,*  
*May and June, 1737.*

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## The C O N T E N T S.

- I. *A Catalogue of the FIFTY PLANTS, from Chelsea-Garden, presented to the Royal Society by the Company of Apothecaries, for the Year 1735. pursuant to the Direction of Sir Hans Sloane, Bart. Med. Reg. & Soc. Reg. Praef. by Isaac Rand, Apothecary, F. R. S. Hort. Cbel. Praef. ac Præc. Botan.*
- II. *The Case of a Lad bitten by a mad Dog, communicated in a Letter from Mr. Edward Nourse, F. R. S. and Chirurgeon to St. Bartholomew's Hospital, to Cromwell Mortimer, M. D. Secr. R. S.*
- III. *An Explanation of the Runic Characters of Helsingland, by Mr. Andrew Celsius, R. S. Suec. Secr. F. R. S. and Professor of Astronomy at Upsal.*
- IV. *A Collection of the Observations made on the Eclipse of the Moon, on March 15, 1735-6. which were communicated to the Royal Society.*
- V. *Investigationes aliquot, ex quibus probetur Terræ figuram secundum Leges attractionis in ratione inversâ quadrati distanciarum maximè ad Ellipsin accedere debere, per Dn. Alexini Clairaut, Reg. Societ. Lond. & Reg. Scient. Acad. Parif. Soc.*
- VI. *Extratt of a Letter from Stephen Williams, M. B. F. R. S. concerning the Viper-catchers, (mention'd in N° 443. of these Transactions) and the Efficacy of Oil of Olives in curing the Bite of Vipers.*

VII. A

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- VII. *A Proposal for the Measurement of the Earth in Russia, read at a Meeting of the Academy of Sciences at St. Petersbourg, Jan. 21, 1737. by M. Jos. Nic. de L'Isle, first Prof. of Astron. and F. R. S. Translated from the French printed at St. Petersbourg, 1737. 4to. By T. S. M. D. F. R. S.*
- VIII. *Extract of a Letter from Monsr de L'Isle to Mr. Nettleton, containing the actual Mensuration of the Basis proposed p. 42. Translated from the French by T. S. M. D. F. R. S.*
- IX. *A Letter from the Rev<sup>l</sup> Mr. Timothy Neve, Secretary of the Gentlemen's Society at Peterborough, to C. Mortimer, Secr. R. S. containing his Observations of two Parhelia, or Mock-Suns, seen Dec. 30, 1735. and of an Aurora Borealis, Dec. 11, 1735.*
- X. *An Observation of two Parhelia, or Mock-Suns, seen at Wittemberg in Saxony, on Dec. 31, 1735. O. S. Jan. 11, 1736. N. S. by John-Frid. Weidler, F. R. S. &c. Translated from the Latin by T. S. M. D. F. R. S.*
- XI. *An Observation of three Mock-Suns, seen in London, Friday, Sept. 17, 1736. by Martin Folkes, Esq; V. Pr. R. S.*
- XII. *De Ruptura Intestini Ilei ex contusione externa sine vulnera externè inficto ex Literis à Christiano Wolfio, Prof. Mathem. Marpurg. Reg. Soc. Lond. & Acad. Reg. Scient. Paris. Socio ad Gulielmum Rutty, M. D. Soc. Reg. Lond. olim Secret. conscriptis excerpta Observatio.*
- XIII. *An Account of some new Statical Experiments, by J. T. Desaguliers, LL. M. F. R. S.*
- XIV. *The Apparent Times of the Immersions and Emergencies of Jupiter's Satellites, for the Year 1739, computed to the Meridian of the Royal Observatory at Greenwich, by James Hodgson, F. R. S. and Master of the Royal Mathematical School in Christ's Hospital, London.*
- XV. *The Apparent Times of such of the Immersions and Emergencies of Jupiter's Satellites, as are visible at London, in the Year 1739. By James Hodgson, F. R. S.*

# PHILOSOPHICAL TRANSACTIONS

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For the Months of *July, August, September, October, November, and December, 1737.*

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## The C O N T E N T S.

- I. *An Account of the Peruvian or Jesuits Bark, by Mr. John Gray, F. R. S. now at Cartagena in the Spanish West-Indies; extracted from some Papers given him by Mr. William Arrot, a Scotch Surgeon, who had gather'd it at the Place where it grows in Peru. Communicated by Mr. Phil. Miller, F. R. S. &c.*
- II. *An Account by Mr. John Eames, F. R. S. of a Book entituled, A Mathematical Treatise, containing a System of Conic-Sections, with the Doctrine of Fluxions and Fluents, applied to various Subjects. By Mr. John Muller.*
- III. *An Observation of the Moon's Transit by Aldebaran, April 3, 1736. made at London by John Bevis, M. D.*
- IV. *A Collection of the Observations of the Lunar*

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- Lunar Eclipse, Sept. 8, 1736. which were sent to the Royal Society.
- IV. *Eclipsis Solaris observata Londini, Sept. 23. 1736. à J. Bevis, M. D.*
- V. *Observations of the Occultation of Mars by the Moon, Oct. 7. 1736. communicated to the Royal Society.*
- VI. *Observations of the Transit of Mercury over the Sun, Oct. 31. 1736. communicated to the Royal Society.*
- VII. *A Collection of Observations communicated to the Royal Society, relating to the COMET that appear'd in the Months of January, February, and March 1736-7.*
- VIII. *A Letter from John Phil. Breyne, M. D. F. R. S. to Sir Hans Sloane, Bart. Pres. R. S. with Observations, and a Description of some Mammoth's Bones dug up in Siberia, proving them to have belonged to Elephants.*
- IX. *Extract of a Letter from Andrew Cantwell, M. D. Monspel. to Dr. Stack, dated at Montpellier, June 29, 1732. N. S. Containing an Account of a large Glandular Tumor, in the Pelvis; and of the pernicious Effects of crude Mercury given inwardly to the Patient.*

# PHILOSOPHICAL TRANSACTIONS

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For the Months of *January, February, March, April*  
and *May, 1738.*

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- II. *Part of a Letter from Dr. Steigertahl, F. R. S. to Sir Hans Sloane, Bart. Pres. R. S. giving an Account of a Narhual or Unicorn Fish, taken in the River Ost, in the Dutchy of Bremen.*
- III. *A Description of the same Narhual, communicated by J. H. Hampe, M.D. F. R. S.*
- IV. *Insectum Aquaticum, antea non descriptum, Scolopendra scutata dicendum, cuius Iconem & Descriptionem ad Illustrissimum Dom.*

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- Dom. Hans Sloane, *R. S. Praef. misit Ds.*  
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*Secret. & R. S. Lond. S.*
- V. *A Letter from the Revd Mr. Littleton Brown, F. R. S. to C. Mortimer, M. D. R. S. Secr. concerning the same sort of Insect found in Kent; with an Addition by the Publisher.*
- VI. *An Account and Abstract of the Meteorological Diaries communicated to the Royal Society, for the Years 1729 and 1730. By Geo. Hadley, Esq; F. R. S.*
- VII. *A Collection of the Observations of the Solar Eclipse, Feb. 18. 1736-7. sent to the Royal Society.*
- VIII. *A Letter from the Revd Ebenezer Latham, M. D. and V. D. M. to C. Mortimer, M. D. Secr. R. S. containing a Proposal to make the Poles of a Globe of the Heavens move in a Circle round the Poles of the Ecliptic.*
- IX. *A Contrivance to make the Poles of the Diurnal Motion in a Celestial Globe pass round the Poles of the Ecliptic; invented by John Senex, F. R. S.*
- X. *The Solution of Kepler's Problem, by J. Machin, Astr. Prof. Gresh. and Secr. R. S.*

# PHILOSOPHICAL TRANSACTIONS

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For the Months of June and July, 1738.

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## The C O N T E N T S.

- I. *A Description of a new Invention of Bellows, called Water-Bellows, by Martin Triewald, F. R. S. Captain of Mechanics, and Military Architect to his Swedish Majesty; communicated to the Royal Society by Sir Hans Sloane, Bart. Pres. R. S. &c.*
- II. *Viri celeberrimi Johannis Marchionis Poleni, R. S. Lond. S. ad Virum Doctissimum Jacobum Jurinum, M. D. R. S. S. Epistola, qua continetur Summarium Observationum Meteorologicarum per sexen-nium Patavii habitarum. Ann. 1731—1736.*
- III. *The Imperfections of the common Barometers, and the Improvement made in them, by Mr. Cha. Orme of Ashby-de-la-Zouche in Leicestershire, where they are perfected and rectified; with some Observations, Remarks and Rules for their Use, by Hen. Beighton, F. R. S.*

IV. Re-

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- IV. *Relatio de Caverna vaporifera Sulphurea in Lapicidina Pyrmontana, quæ similis est Foveæ Neapolitanæ Grotta di Cane dictæ, à D<sup>no</sup> Miffon, & aliis descriptæ, cum Regali Societate communicata à Johanne Philippo Seip, M. D. Consil. Aulic. & Archiatro Sereniss. Principis à Waldeck, necnon R. S. Lond. Socio.*
- V. *A Letter from John Fuller, Esq; Jun. F. R. S. to Sir Hans Sloane, Bart. Pres. R. S. &c. concerning the Effects of Dampier's Powder, in curing the Bite of a Mad-Dog.*
- VI. *Another Case of a Person bit by a Mad-Dog, drawn up by David Hartley, M. A. and Mr. Fr. Sandys, communicated to the ROYAL SOCIETY by Francis Wollaston, Esq; F. R. S.*

# PHILOSOPHICAL TRANSACTIONS

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For the Months of *August* and *September*, 1738.

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- I. *An Inquiry concerning the Figure of such Planets as revolve about an Axis, supposing the Density continually to vary, from the Centre towards the Surface;* by Mr. Alexis Clairaut, F. R. S. and Member of the Royal Academy of Sciences at Paris. Translated from the French by the Rev. John Colfon, Lucas. Prof. Math. Cantab. and F. R. S.
- II. *New Experiments upon Ice;* taken from Abbé Nolet, F. R. S. at Paris, and communicated by J. T. Desaguliers, LL. D. F. R. S.
- III. *An Observation of the Magnetic Needle being so affected by great Cold, that it would not traverse;* by Capt. Christopher Middleton, F. R. S.
- IV. *Extract of a Letter from Dr. Andrew Cantwell of Montpelier, to Dr. Thomas Stack, dated June 23. 1732. concerning an uncommon Palsey of the Eye-lids.*
- V. *An Account of the Man whose Arm with the Shoulder-blade was torn off by a Mill, the 15th of August 1737. by Mr. John Belchier, F. R. S. Surgeon to Guy's Hospital.*
- VI. *An*

## The C O N T E N T S.

- VI. *An Account of the Wound, which the late Lord Carpenter received at Brihuega; whereby a Bullet remained near his Gullet for a Year wanting a few Days; communicated to the Royal Society by his Son the Right Honourable George Lord Carpenter, F. R. S. &c.*
- VII. *Of an Obstruction of the Biliary Ducts, and an Impostumation of the Gall-Bladder, discharging upwards of 18 Quarts of bilious Matter in 25 Days, without any apparent Defect in the Animal Functions. By Claudio Amyand, Esq; Serjeant Surgeon to His Majesty, and F. R. S.*
- VIII. *Some Observations on the preceeding Case, by Alexander Stuart, M. D. F. R. S. &c.*
- IX. *The apparent Times of the Immersions and Emersions of the four Satellites of Jupiter, for the Year 1740. computed to the Meridian of the Royal Observatory at Greenwich, by James Hodgson, F. R. S. Master of the Royal Mathematical School in Christ's Hospital, London.*
- X. *The apparent Times of such of the Immersions and Emersions of Jupiter's Satellites, as are visible at London, in the Year 1740. By the Same.*
- XI. *A Continuation of an Account of An Essay towards a Natural History of Carolina, and the Bahama Islands; by Mark Catesby, F. R. S. with some Extracts out of the ninth Set, by Dr. Mortimer, Secr. R. S.*

# PHILOSOPHICAL TRANSACTIONS

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For the Months of *October* and *November*, 1738.

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- I. Matthiae Belii *Pannonii*, *Reg. Soc. Lond. S. & Reg. Soc. Scient. Berolin. Colleg, &c.* OBSERVATIO HISTORICO-PHYSICA, *de Aquis Neosoliensium æratis, vulgo Cement-Waszser dictis, Ferrum Ære permutantibus, in Epistolâ ad Illust. Dn. Hans Sloane, Bart. R. S. Pr. scriptâ communicata.*
- II. *Of a Bubonocele or Rupture in the Groin, and the Operation made upon it; by Claud. Amyand, Esq; Serjeant Surgeon to His MAJESTY, and F. R. S.*
- III. *An Account of a Pin taken out of the Bladder of a Child, by Mr. William Gregory, Surgeon; communicated in a Letter to Sir Hans Sloane, Bart. Pr. R. S.*
- IV. *A Letter from the Marquis de Caumont to Sir Hans Sloane, Bart. President of the Royal Society, containing the Description of a very extraordinary Stone or Calculus (see TAB. fig. 1.) taken out of the Bladder of a Man after Death; translated from the French by T.S. M.D. F.R.S.*
- V. *An Account of the Case above-mention'd, translated from the French by Mr. P. H. Zollman, F. R. S.*
- VI. *Sir Hans Sloane, Bart. Pr. R. S. his Answer to the Marquis de Caumont's Letter, concerning this Stone; translated from the Latin by Tho. Stack, M.D. F.R.S.*
- VII. *An Account of some Oil of Saflafras crystallized, by Mr. John Maud, Chemist, F. R. S.*
- VIII. *An*

## The C O N T E N T S.

- VIII. *An Observation of an extraordinary Damp in a Well in the Isle of Wight; communicated in a Letter from Mr. Benj. Cooke, F. R. S. to Mr. Peter Collinson, F. R. S.*
- IX. *An Extract from the Journal Books of the Royal Society, concerning Magnets having more Poles than two; by John Eames, F. R. S. with some Observations by Dr. Desaguliers on the same Subject.*
- X. *An Account of some Magnetical Experiments made before the Royal Society, on Thursday the 24th Day of June 1736. by the Revd. J. T. Desaguliers, LL. D. F. R. S.*
- XI. *The Description of an antique Metal Stamp, in the Collection of his Grace CHARLES Duke of Richmond, Lenox and Aubigny, F. R. S. &c. being one of the Instances, how near the Romans had arrived to the Art of Printing; with some Remarks by C. Mortimer, M. D. Fellow of the College of Physicians, and Secr. R. S. Lond. See TAB. fig. 3.*
- XII. *Mercurius a Venere occultatus Maii 17. 1737. in Observatorio Regio Grenovici, ab J. Bevis, M. D. observatus.*
- XIII. *The Use of a new Azimuth Compass for finding the Variation of the Compass or Magnetic Needle at Sea, with greater Ease and Exactness than by any ever yet contriv'd for that Purpose; by Capt. Christopher Middleton, F. R. S.*
- XIV. *An Account of a Book intituled, Notitia Hungariae novae Historico-Geographica, &c. Auctore Matth. Belio. By the Revd. Zachary Pearce, D. D. F. R. S. &c.*
- XV. *A short Account of Mr. Kersseboom's Essay [intituled, Vanhandeling tot een Proeve om te weeten de probable Menigte des Volks in de Provintie van Hollandt en Westfrieslandt. Hage 1738. in 4<sup>to</sup>. door W. Kersseboom] upon the Number of People in Holland and West-Friesland, as also in Harlem, Gouda and the Hague; drawn from the Bills of Births, Burials, or Marriages, in those Places. By J. Eames, F. R. S.*
- XVI. *An Answer to that Part of Mr. W. Kersseboom's Essay, which treats of the Number of the Inhabitants of London; by Wm. Maitland, F. R. S.*

I. Matthiae

# PHILOSOPHICAL TRANSACTIONS.

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For the Month of December, 1738.

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## The C O N T E N T S.

- I. *A Description of a Water-Level to be fix'd to Davis's Quadrant, whereby an Observation may be taken at Sea, in thick and hazy Weather, without seeing the Horizon; by Charles Leigh, Gent.*
- II. *The Description and Use of an Apparatus added as an Improvement to Davis's Quadrant, consisting of a Mercurial Level, for taking the Co-altitude of Sun or Star at Sea, without the usual Assistance of the sensible Horizon, which frequently is obscured. By the Same.*
- III. *A Letter from Mr. John Ferguson, Surgeon, to William Cheselden, Esq; Surgeon to Chelsea College, F. R. S. &c. containing an Account of the Extirpation of part of the Spleen of a Man.*
- IV. *A Letter from Benjamin Cooke, F. R. S. to Peter Collinson, F. R. S. concerning a Ball of Sulphur supposed to be generated in the Air.*
- V. *An Account of a Book intituled, Observations de Aeris & Morbis Epidemicis, ab Anno 1728, ad finem Anni 1737, Plymuthi factæ. His accedit Opusculum de Morbo Colico Damnoniensi. Auctore Joanne Huxham, M. D. R. S. S. Drawn up by Tho. Stack, M. D. F. R. S.*

## The C O N T E N T S.

- VI. *An Abstract by C. Mortimer, M. D. Secr. R. S. of an Inaugural Dissertation published at Wittemberg 1736. by Dr. Abraham Vater, F. R. S. concerning the Cure of the Bite of a Viper, cured by Sal-lad-oil.*
- VII. *Abstracts of two Letters from M. Dufay, F. R. S. &c. to Dr. Mortimer, Secr. R. S. concerning the Efficacy of Oil of Olives in curing the Bite of Vipers.*
- VIII. *Extract of a Letter concerning the Poison of Henbane-Roots, from Dr. Patouillat, Physician at Toucy in France, to M. Geoffroy, F. R. S. and Member of the Royal Academy of Sciences at Paris, communicated to the ROYAL SOCIETY, London, by Sir Hans Sloane, Med. Reg. and Pres. R. S. Translated from the French by T. S. M. D. F. R. S.*
- IX. *A Letter from the Rev<sup>d</sup>. Mr. Tho. Steward, V. D. M. to Dr. Mortimer, Secr. R. S. concerning the Virtues of the Star of the Earth, CORONOPUS, or Bucks-horn Plantain, in the Cure of the Bite of the Mad-Dog.*
- X. *De Reductione Radicalium ad simpliciores terminos, seu de extrahenda radice quacunque data ex Binomio  $a + \sqrt{b}$ , vel  $a + \sqrt{-b}$ . EPISTOLA Abrahami de Moivre, R. S. S. ad Gulielmum Jones, Armigerum, R. S. S.*

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*At a Meeting of the Council of the ROYAL  
SOCIETY, Nov. 12. 1739.*

**T**HESSE Lectures on MUSCULAR MOTION, by Alexander Stuart, M.D. &c. having been, according to the Will of the Lady Sadleir, communicated before-hand to me, and approved, and afterwards read at several Meetings of this SOCIETY, for which he received their Thanks: I do direct the same to be printed.

Hans Sloane, P.R.S.

To the HONOURABLE  
Sir *HANS SLOANE*, Bar<sup>t</sup>.  
P R E S I D E N T,  
AND TO THE  
COUNCIL and FELLOWS  
OF THE  
*ROYAL SOCIETY*  
*of LONDON*, for  
Promotimg Natural Knowledge,  
These three first LECTURES on  
**MUSCULAR MOTION**  
Are humbly Dedicated.

B Y

*Their most obedient  
humble Servant,*

**ALEXANDER STUART.**